

## ENGINEERING TECHNICIAN II

### DEFINITION

To perform a wide variety of technical and paraprofessional engineering support work in the field or office; may perform lead assignments involving coordination of specific projects and studies; provide support to engineering project managers in the planning, design and construction management of assigned projects including providing information to contractors, developers, and the general public; and perform related duties as assigned.

### DISTINGUISHING CHARACTERISTICS

This is the full journey level class in the Engineering Technician series and it is distinguished from the Engineering Technician I level by the ability to perform the full range of duties assigned with only occasional instruction or assistance as unusual or unique situations arise. Positions in this class are flexibly staffed and are normally filled by advancement from the level I or by outside candidates having prior experience.

### SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from an assigned supervisor.

### ESSENTIAL FUNCTIONS – Functions may include, but are not limited to, the following:

Perform a wide variety of technical and paraprofessional engineering support work in the field or office; may perform lead assignments involving coordination of specific projects and studies; provide support to engineering project managers in the planning, design, and construction management of assigned projects.

Assist in performing engineering design work for streets, storm drains, sanitary sewers, traffic signals, traffic control plans, and other public works facilities under the supervision of an Engineer.

Assign address for new subdivision; attend to citizens request for additional or change of address; send notification of new address to city departments and utility companies.

Assist in checking improvement and grading plans submitted by engineers and developers; undertake field checks of improvement deferral encroachment permit and driveway variance applications; prepare permit documents; review and process building permit applications.

Prepare GIS layer of sewer mains, storm drains, improvement and grading plans for CVMapper; prepare GIS layer of easement detail to the city.

Download sewage flow from CV meters; prepare weekly flow reports and graphs; collect weekly flow from Duke Energy; troubleshoot flow meters; coordinate emergency flow backups with Metro and CV Operations.

Work with engineer staff to select monitoring sites; coordinate with Public Works Operations per monitoring activities (i.e. traffic controls); calibrate flow meter to site specifications; assist City crew in the installations of flow meter.

Retrieve flow data; compile reports; prepare quarterly and annual flow reports of metered and no metered sewage flow generated; compare flow data to in-house obtained flow monitoring program data; make any necessary adjustments; convey information.

Assist in the investigation/establishment of request for sewer service charge variance; administer billing of existing sewer variance accounts; evaluate yearly sewer rate for high volume discharger.

Assist engineers in reviewing various engineering and environmental documents (Plans, Sewer Studies, Environmental Impact Reports, etc); prepare project initial studies for various development projects.

Assist engineers with assigned CIP projects by drafting and conducting field investigations; design minor CIP projects; conduct field investigations; meet with contractors; write specifications; prepare cost estimates, research, and bidding of the contract.

Set traffic counters and collect traffic count data; maintain database; provide volume information to consultants and the public; assist in the review Traffic Control Plans for compliance with City standards.

Bill contractors for signage and striping on all approved improvement plans.

Coordinate City's Traffic Monitoring Program (TMP); determine street segments to study, study time periods; perform fieldwork and data processing.

Coordinate City's Safety Commission; review and prepare items that need to be presented to commission; determine studies needed; prepare mail outs and public notifications; mark out new signing and striping in the field as results of items approved; write work orders.

Conduct traffic counts and traffic-engineering studies; determine recommendations; review and analyze data collected; prepare report, tables, and graphs.

Check for right-of-way requirements; prepare cost estimates for minor construction projects.

Assist in preparing and checking legal descriptions; prepare accurate sketches and permanent plans, diagrams, maps and supporting data for preparation of preliminary and final engineering plans, specifications, and cost estimates for CIP projects.

Coordinate minor projects with other departments, utility companies, and contractors; check and analyzes field data.

Answer engineering questions at counter from citizens; respond to citizen's questions and complaints; conduct field investigations; provide remedies.

Build and maintain positive working relationships with co-workers, other City employees, and the public using principles of good customer service.

Perform related duties as assigned.

### MINIMUM QUALIFICATIONS

#### Knowledge of:

City Engineering policies and procedures related to the construction, design and maintenance of municipal systems and facilities.

Standards, standard drafting symbols, methods, practices, techniques and instruments used in engineering and mapping.

Basic principles and practices of civil engineering.

Basic mathematics covering geometry, trigonometry, and algebra.

Applicable federal , state and local laws, codes and regulations.

Operational characteristics of standard engineering equipment.

English usage, spelling, grammar, and punctuation.

Computer equipment and software applications related to assignment.

#### Ability to:

Use computer aided drafting and design systems, databases, GIS systems, and other programs related to engineering design.

Understand, interpret, and prepare legal descriptions, engineering reports, and maps.

Review plans and documents for conformance with regulations.

Communicate clearly and concisely, both orally and in writing.

Establish and maintain effective working relationships with those contacted in the course of work.

Work with various cultural and ethnic groups in a tactful and effective manner.

### Experience and Training

Any combination of education and/or experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

#### Experience:

Two years of responsible experience in field survey, drafting, or related civil engineering work.

#### Training:

Equivalent to completion of the twelfth grade supplemented by college coursework in engineering, mathematics, drafting, surveying, computer science/CADD, or related field. An Associate's Degree is desirable.

### License or Certificate

Possession of a valid California driver's license.

### PHYSICAL DEMANDS

On a continuous basis walk, stand, bend, crouch, or stoop, sit for varying periods of time; must possess sufficient strength, stamina, agility, and dexterity to manipulate, operate, lift, and carry objects, tools, and materials or equipment for field inspections, materials testing, surveying, and office work. Must possess ability to: read and write reports, correspondence, and instructions; verbally communicate in person, over a radio, a telephone conversations; see in the normal vision range with or without correction; hear in the normal range with or without correction.

### WORKING ENVIRONMENT

Work is performed both outdoors and indoors; the performance of fieldwork tasks requires exposure to a variety of traffic and weather conditions with possible exposure to hazardous materials; indoors work is performed in a carpeted and air-conditioned office environment with fluorescent lighting and moderate noise level. May operate equipment, tools, vehicles under daylight and evening conditions. Work is frequently disrupted by the need to respond to in-person and telephone inquiries